Although several embodiments of the invention have been described and illustrated, the invention is not to be limited to the specific forms or arrangements of parts so described and illustrated. The invention is limited only by the claims.

## CLAIMS

What is claimed is:

1. A hand held computer input device for a computer or the like, said input device comprising:

a body, said body being generally elliptical or cylindrical;

a switch, said switch being located at one end of said body, said switch being switched on or off by depressing and releasing said input device against a work surface;

an optical motion detection integrated circuit mounted at said end of the body, the motion detection integrated circuit producing motion indication signals indicative of the motion of said input device relative to said work surface.

2. A device as in claim 1, further comprising:

a tip, said tip being located in front of said switch to provide convenience for depressing and releasing.

3. A device as in claim 1, further comprising:

an illumination source, said illumination source being located at said end of the body and providing lights to directly illuminate a work surface.

4. A device as in claim 1, further comprising:

a communication link, said communication link transmitting information representing the motion signal of said input device and buttons' states.

5. A device as in claim 1, further comprising:

one switch, said switch being located on said body, said switch being operated by user's index finger; said switch being coupled to said communication link wherein said communication link transmits information representing the state of said switch.

6. A device as in claim 1, further comprising:

one switch, said switch being located on said body, said switch being operated by user's thumb; said switch being coupled to said communication link wherein said communication link transmits information representing the state of said switch.

7. A device as in claim 5, further comprising:

one rotation sensor operated by a wheel, said rotation sensor and said wheel being located in conjunction with said switch in claim 5; said rotation sensor being coupled to said communication link wherein said communication link transmits information representing the state of said rotation sensor.

8. A device as in claim 6, further comprising:

one rotation sensor operated by a wheel, said rotation sensor and said wheel being located in conjunction with said switch in claim 6; said rotation sensor being coupled to said communication link wherein said communication link transmits information representing the state of said rotation sensor.

9. A device as in claim 4 wherein said communication link is via radio frequency waves.

10. A device as in claim 4 wherein said communication link is via infrared light.